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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
LEON, EDWIN A

ART UNIT	PAPER NUMBER
2833	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/707,912	WLOS, JIM	
	Examiner	Art Unit	
	Edwin A. León	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed February 20, 2007 in which Claims 1 and 12 have been amended, has been placed of record in the file.

2. The amendment filed February 20, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "via an inward projection of the spring fingers". Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the

invention. The limitation ""via an inward projection of the spring fingers" is not described in the Specification or shown in the Drawings. For examination purposes this limitation will be given little patentable weight.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-5, 7-13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arcykiewicz et al. (U.S. Patent No. 6,267,612) in view of Nelson (U.S. Patent No. 5,454,735). With regard to Claims 1-4 and 8, Arcykiewicz et al. (Figs. 1-3) discloses a connector interface for connecting to a cylindrical female connector body (23) having an outer diameter surface (Fig. 2) and a bore (Fig. 2) with an inner diameter surface (Fig. 2), comprising: a male connector body (20, 22) with a plurality of integral spring fingers (24) biased for an interference fit upon the outer diameter surface; a front end portion of a sleeve (20) of the male connector body adapted to insert within the bore.

However, Arcykiewicz et al. doesn't show a first spring located on an outer diameter of the sleeve, the first spring dimensioned for direct contact between the inner diameter surface of the bore and the outer diameter of the sleeve, the first spring

contacting the inner diameter surface upon mating of the male connector body with the female connector body, the first spring being located by a first groove formed in the outer diameter of the sleeve, the first spring being a canted coil spring, an inner conductor contact positioned coaxially within a sleeve bore by an insulator.

Nelson teaches (in Fig. 1) a similar connector having a first spring (11) located on an outer diameter of the sleeve (Fig. 1), the first spring dimensioned for direct contact between the inner diameter surface of the bore (Fig. 1) and the outer diameter of the sleeve, the first spring contacting the inner diameter surface upon mating of the male connector body (64) with the female connector body (13), the first spring being located by a first groove (80) formed in the outer diameter of the sleeve, the first spring being a canted coil spring (11), an inner conductor contact (86) positioned coaxially within a sleeve bore (68) by an insulator (insulation of 85).

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Arcykiewicz et al. by including a first spring located on an outer diameter of the sleeve, the first spring dimensioned for direct contact between the inner diameter surface of the bore and the outer diameter of the sleeve, the first spring contacting the inner diameter surface upon mating of the male connector body with the female connector body, the first spring being located by a first groove formed in the outer diameter of the sleeve, the first spring being a canted coil spring, an inner conductor contact positioned coaxially within a sleeve bore by an insulator as taught in Nelson in order to prevent the male and female parts from

becoming separated unless the cables are subjected to substantial tensile forces (Nelson, Column 2, Lines 60-65).

Regarding Claim 4, the limitation "the first spring is dimensioned whereby the first spring elastically deforms between the sleeve and the inner diameter surface upon mating of the male connector body with the female connector body" has been given little patentable weight since it has been held that the functional language "whereby" statement does not define any structure and accordingly can not serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957).

With regard to Claims 12-13, Arcykiewicz et al. (Figs. 1-3) discloses a connector interface between a female connector (23) with an outer diameter surface (Fig. 2) and a bore (Fig. 2) with an inner diameter surface (Fig. 2) and a male connector (20, 22), comprising: a plurality of spring fingers (24) formed in a leading edge of a body (22) of the male connector; the plurality of spring fingers biased to engage an outer diameter surface of the female connector.

However, Arcykiewicz et al. doesn't show a first spring electrically coupled to the male connector; the first spring biased to directly contact the inner diameter surface of the bore, the first spring being located by a first groove formed in an outer diameter of a sleeve within the male connector.

Nelson teaches (in Fig. 1) a similar connector having a first spring (11) located on an outer diameter of the sleeve (Fig. 1), the first spring dimensioned for direct contact between the inner diameter surface of the bore (Fig. 1) and the outer diameter of the sleeve, the first spring contacting the inner diameter surface upon mating of the male

connector body (64) with the female connector body (13), the first spring being located by a first groove (80) formed in the outer diameter of the sleeve, the first spring being a canted coil spring (11).

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Arcykiewicz et al. by including a first spring electrically coupled to the male connector; the first spring biased to directly contact the inner diameter surface of the bore, the first spring being located by a first groove formed in an outer diameter of a sleeve within the male connector as taught in Nelson in order to prevent the male and female parts from becoming separated unless the cables are subjected to substantial tensile forces (Nelson, Column 2, Lines 60-65).

With regard to Claims 5, 7 and 15-16, the combination of Arcyliewicz et al. and Nelson discloses the claimed invention as shown above except for a second groove located around the plurality of outer spring rings, a second spring positioned in the second grove biasing the plurality of outer spring fingers inward, the female connector has a third groove located on the inner diameter surface; the third groove adapted to align with the first groove when the male connector body is seated against the female connector and the third groove adapted to receive an inner diameter contacting portion of the first spring when the male connector body is seated against the female connector, the female connector has a third groove located on the inner diameter surface; the third groove adapted to align with the first groove when the male connector body is seated against the female connector and the third groove adapted to receive an inner diameter contacting portion of the first spring when the male connector body is seated against the

female connector and a third groove adapted to engage the first spring is located on the inner diameter surface of the bore.

Still, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a second groove located around the plurality of outer spring rings, a second spring positioned in the second grove biasing the plurality of outer spring fingers inward, the female connector having a third groove located on the inner diameter surface; the third groove adapted to align with the first groove when the male connector body is seated against the female connector and the third groove adapted to receive an inner diameter contacting portion of the first spring when the male connector body is seated against the female connector, the female connector has a third groove located on the inner diameter surface; the third groove adapted to align with the first groove when the male connector body is seated against the female connector and the third groove adapted to receive an inner diameter contacting portion of the first spring when the male connector body is seated against the female connector and a third groove adapted to engage the first spring is located on the inner diameter surface of the bore, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

With regard to Claim 9, Arcykiewicz et al. (Figs. 1-3) discloses each of the plurality of outer spring fingers having an angled face (Fig. 1).

With regard to Claim 10, Arcykiewicz et al. (Figs. 1-3) discloses the sleeve is formed as a separate component press-fit into place within the male connector body.

With regard to Claim 11, Arcykiewicz et al. (Figs. 1-3) discloses the sleeve being press-fit within the male connector body up to an internally projecting shoulder (15) of the male connector body.

7. Claims 6, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arcykiewicz et al. (U.S. Patent No. 6,267,612) in view of Nelson (U.S. Patent No. 5,454,735) in further view of Maury (U.S. Patent No. 6,210,221). The combination of Arcykiewicz and Nelson discloses the claimed invention except for a second groove located around the plurality of outer spring fingers; a second spring positioned in the second groove biasing the plurality of outer spring fingers inward and the female connector being one of an SMA and a Type N connector.

Maury (Figs. 3-4) discloses a similar connector having a second groove (where 20 is located) located around a plurality of outer spring fingers (15); a second spring (20) positioned in the second groove biasing the plurality of outer spring fingers inward and the female connector being one of an SMA (Column 1, Lines 42-46) and a Type N connector (Column 1, Lines 54-58).

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Haller et al. by including a second groove located around the plurality of outer spring fingers; a second spring positioned in the second groove biasing the plurality of outer spring fingers inward and the female connector being one of an SMA and a Type N connector as taught in Maury

in order to provide quick connect/disconnect coaxial electrical connections making it more versatile.

Response to Arguments

8. Applicant's arguments filed February 20, 2007 have been fully considered but they are not persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to Applicant's argument regarding Claims 1 and 12 that the Arcykiewicz reference doesn't show an inward projection of the spring fingers, Applicant is reminded that the added material which is not supported by the original disclosure. Therefore, this limitation has been given little patentable weight.

In response to Applicant's argument regarding Claims 1 and 12 that the Arcykiewicz reference doesn't show the body and the spring fingers being integral, Applicant's attention is directed to Fig. 2 in which Arcykiewicz clearly discloses a male connector body (20, 22) with a plurality of integral spring fingers (24). Applicant is reminded that the Examiner defined the body as being the combination of 20 and 22. Therefore, since spring fingers (24) are integral with part 22 of the body, it is the

Examiner's opinion that the combination of Arcykiewicz and Nelson would meet Applicant's claims in their broadest interpretation.

Conclusion

9. **THIS ACTION IS MADE FINAL** necessitated by amendment. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800, extension 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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EAL
March 11, 2007

TRUC T. NGUYEN
PRIMARY EXAMINER